

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A device insertable into a structure having a lumen, comprising:
a first housing;
at least one functional element connected to the first housing, ~~the functional element~~ for use during a minimal access procedure; and
a securing element associated with the insertable device for removably securing the insertable device ~~to or against a wall of a~~ within the structure having a lumen.
2. (Currently Amended) The insertable device of claim 1, wherein the at least one functional element is movably connected to the first housing, the device further comprising at least one actuating element connected to the first housing and the functional element, ~~the actuating element capable of~~ for moving the functional element in relation to the first housing in at least one degree of freedom.
3. (Currently Amended) The insertable device of claim 1, wherein the securing element comprises a needle protruding from the insertable device essentially inline with an elongated axis of the device, ~~a magnet, a clamp, and an adhesive~~.
4. (Currently Amended) The insertable device of claim 1, wherein the securing element is selected from the group comprising ~~comprises one of~~ a magnet, a clamp, and an adhesive.
5. (Currently amended) The insertable device of claim 1 ~~adopted adapted~~ for use in connection with minimal access surgical procedures, wherein the securing element comprises a needle protruding from the insertable device essentially inline with an elongated axis of the device, ~~the insertable device capable therewith of being removably secured against a subject's abdominal wall by inserting the needle~~ for insertion into ~~tissue of the abdominal wall~~ tissue.
6. (Currently amended) The insertable device of claim 1, wherein the functional element ~~comprises~~ is selected from the group comprising a camera element, a light element, and a laser element.

7. (Currently amended) The insertable device of claim 6 1, wherein the functional element comprises a camera element comprising one of a CMOS imaging sensor and a CCD image sensor.

8. (Currently Amended) The insertable device of claim 1, wherein the functional element is comprises a camera element comprising a lens, a lens housing, and a CCD image sensor mounted in a the lens housing, wherein the lens housing has having threads therein to accept the lens and to accommodate focal adjustments.

9. (Currently Amended) The insertable device of claim 1, wherein the at least one functional element is movably connected to the first housing, the device further comprising at least one actuating element connected to the first housing and the functional element, the actuating element capable of for moving the camera functional element in relation to the first housing in at least one-a degree of freedom selected from a the group consisting of:

a first degree of rotational freedom essentially orthogonal to an elongated axis of the device;

a second degree of rotational freedom essentially inline with the elongated axis; and

a third degree of translation freedom essentially inline with the elongated axis.

10. (Currently amended) The insertable device of claim 1, wherein the at least one functional element comprises a plurality of functional elements selected from the group consisting of a camera, a light element, and a laser elements movably connected to the first housing, the device further comprising a plurality of actuating element elements connected to the first housing and the camera functional elements, the actuating elements capable of for moving each of the functional camera elements in relation to the first housing in at least one-a degree of freedom selected from the group consisting of:

a first degree of rotational freedom essentially orthogonal to an elongated axis of the device;

a second degree of rotational freedom essentially inline with the elongated axis; and

a third degree of translation freedom essentially inline with the elongated axis.

11. (Currently amended) The insertable device of claim 1, wherein the at least one functional element is movably connected to the first housing, the device further comprising at least one actuating element connected to the first housing and the functional element, the

~~actuating element capable of for moving the camera functional element in relation to the first housing in a first degree of rotational freedom essentially orthogonal to an elongated axis of the device for allowing the functional element to be retracted into and extracted from the first housing.~~

12. (Currently Amended) The insertable device of claim 11, wherein the actuating elements element is a motor for producing rotational movement that interfaces with the functional element to redirect the rotational movement produced by the motor movement in a direction essentially orthogonal to the elongated axis.

13. (Currently Amended) The insertable device of claim 12, wherein the actuating element interfaces with the functional element with includes a worm gear assembly.

14. (Currently Amended) The insertable device of claim 1, comprising a second housing rotatably attached to the first housing and wherein the at least one actuating element is further connected to the first and second housings, the actuating element thereby capable of housing for moving the functional element in relation to the first housing in a second degree of rotational freedom essentially inline to with an elongated axis of the device by rotating the first housing in relation to the second housing.

15. (Currently Amended) The insertable device of claim 1, wherein the at least one functional element is movably connected to the first housing, the device further comprising at least one actuating element connected to the first housing and the functional element, the actuating element capable of for moving the functional element in relation to the first housing in a third degree of longitudinal freedom essentially inline to with an elongated axis of the device allowing the functional element to translate along the third degree of freedom.

16. (Currently Amended) The insertable device of claim 15, further comprising a lead screw, a shuttle capable of moving along the elongated axis of the screw, wherein the functional element is mounted to the shuttle and the actuating element is a motor producing rotational movement connected to a lead screw that interfaces with a threaded portion of the shuttle to translate the rotational movement of the motor into for providing longitudinal movement in to the shuttle along the elongated axis.

17. (Currently Amended) The insertable device of claim 15, further comprising a plurality of functional elements, a corresponding number of motors for producing rotational movement, a corresponding number of lead screws and a corresponding number of shuttles capable of moving along the elongated axis, each shuttle comprising a threaded portion and a hole therein, wherein each functional element is mounted to a its corresponding shuttle, and wherein each motor is connected to a its corresponding lead screw ~~that interfaces with the threaded portion of one of the shuttles to translate the rotational movement of the motor into~~ for providing longitudinal movement ~~in~~ to the shuttle along the elongated axis, and wherein each lead screw passes through the a hole of another shuttle to provide a guide for the other shuttle.

18. (Currently Amended) The insertable device of claim 17, further comprising at least one actuating element mounted onto each shuttle, ~~the actuating element capable of for~~ moving the functional elements in relation to the first housing ~~in a first degree of rotational freedom~~ essentially orthogonal to the elongated axis thereby allowing the functional elements to be retracted into and extracted from the first housing.

19. (Original) The insertable device of claim 18, wherein the plurality of actuating elements are capable of moving each of the functional elements independently of each other.

20. (Currently Amended) The insertable device of claim 1, further comprising a second housing rotatably attached to the first housing and at least one actuating element connected to the first and second housings, ~~the actuating element thereby capable of for~~ rotating the first housing in relation to the second housing, wherein each housing has an access opening therein capable of for aligning with each other such that the first housing may be rotated to cover the functional elements element and rotated to align the access openings to expose the functional element.

21. (Currently amended) An- A device insertable into a structure having a lumen, ~~the device~~ comprising:

a first housing;
style="padding-left: 40px;">a second housing rotatably connected to the first housing;
style="padding-left: 40px;">at least one camera element comprising an image sensor movably connected to the first housing;

at least one actuating element connected to the first housing and the camera element, ~~the actuating element capable of for~~ moving the camera element in relation to the first housing in ~~at least one a~~ degree of freedom selected from a group consisting of:

- a first degree of rotational freedom essentially orthogonal to an elongated axis of the device,
- a second degree of rotational freedom essentially inline with the elongated axis, and
- a third degree of longitudinal freedom essentially inline with the elongated axis; and

a securing element associated with the second housing for removably securing the device ~~to or against a wall of a~~ within the structure having a lumen.

22. (Currently amended) ~~An~~ A device insertable into a structure having a lumen, ~~the device~~ comprising:

- a first housing;
- a second housing rotatably connected to the first housing;
- a plurality of camera elements each comprising an image sensor movably connected to the first housing;
- at least one actuating element connected to the first housing and the second housing, ~~the actuating element capable of for~~ rotating the first housing in relation to the second housing;
- at least one actuating element connected to each of the camera elements, ~~the actuating element capable of for~~ moving the camera element in relation to the first housing ~~in a first degree of rotational freedom~~ essentially orthogonal to an elongated axis of the device; and
- a securing element associated with the second housing for removably securing the device ~~to or against a wall of a~~ within the structure with a lumen.

Please cancel Claims 23-28 without prejudice.